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| 10/520,403 | 01/06/2005 | Rainer Mangold | 1703 1334US | 5066 |

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| EXAMINER | |
|---|---|
| ADAMS, AMANDA S | |
| ART UNIT | PAPER NUMBER |
| 3731 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/520,403 | MANGOLD ET AL. | |
| | Examiner | Art Unit | |
| | Amanda Adams | 3731 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *06 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *23-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-45* is/are rejected.

7)☒ Claim(s) *34* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/6/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Objections*

2. **Claim 34** is objected to because of the following informalities: "additional cotton fibers" implies that the original fibers of claim 23 must also be cotton, but claim 23 does not specify the material of the fibers. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131

USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, the following claims are rejected for this reason:

5. **Claim 25** recites the broad recitation "50 to 400 um", and the claim also recites an intermediate recitation "100 to 350 um", and "150 to 300 um" which is the narrowest statement of the range/limitation.

6. **Claim 26** recites the broad recitation "50 to 400 um", and the claim also recites an intermediate recitation "100 to 350 um", and "150 to 300 um" which is the narrowest statement of the range/limitation.

7. **Claim 27** recites the broad recitation "5 to 50 gram per square meter", and the claim recites an intermediate recitation "10 to 40", and also recites "15 to 30" which is the narrowest statement of the range/limitation.

8. **Claim 32** recites the broad recitation "40 to 300 gram per square meter", and the claim also recites "150 to 250" which is the narrowest statement of the range/limitation.

9. **Claim 33** recites the broad recitation "15 to 85 % per weight", and the claim also recites "20 to 30 % per weight" which is the narrowest statement of the range/limitation.

10. **Claim 34** recites the broad recitation "up to 72 % per weight", and the claim also recites "50 to 65 % per weight" which is the narrowest statement of the range/limitation.

11. **Claim 36** recites the broad recitation "10 to 20 weight %", and the claim also recites "12 to 15 % weight %" which is the narrowest statement of the range/limitation.

12. **Claim 38** recites the broad recitation "1.3 to 10 dtex", and the claim also recites "1.3 to 3.0 dtex" which is the narrower statement of the range/limitation.

***Claim Rejections - 35 USC § 102***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. **Claims 23, 28, and 42** are rejected under 35 U.S.C. 102(b) as being anticipated by Martin et al (US 5,972,463).

15. **Regarding claim 23,** Martin discloses the invention substantially as claimed including a pad comprising a fiber layer; and abrasive particles sintered onto at least one side of said fiber layer to form a roughened surface (col. 22, lines 52-67).

16. **Regarding claim 28**, Martin discloses said fiber material includes a non-woven material (col. 4, line 33).

17. **Regarding claim 42**, Martin discloses the method substantially as claimed including the steps of preparing a fiber layer (col. 20, lines 10-11); introducing meltable glue powder particles onto one side of the fiber layer, and thermally bonding the particles to the fiber layer (col. 22, lines 58-67; col. 23 lines 23-30).

18. **Claims 42 and 44** are rejected under 35 U.S.C. 102(e) as being anticipated by McMeekin et al (US 2003/0031703).

19. McMeekin discloses the method substantially as claimed including the steps of preparing a fiber layer (par. 11 and 13); introducing meltable glue powder particles onto one side of the fiber layer (par. 24); and thermally bonding the particles to the fiber layer (par 24 discloses a melt process).

20. **Regarding claim 44**, McMeekin also discloses that the meltable glue powder particles are introduced onto one side of the fiber layer in a non-uniform fashion using a template (par. 31 and 32).

***Claim Rejections - 35 USC § 103***

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**22. Claims 24, 25, 27, 29-31, and 33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al (US 5,972,463).

23. **Regarding claim 24**, Martin discloses that said particles comprise a meltable thermoplastic glue powder containing a plastic (col. 22, lines 60-67). While Martin does not specifically disclose a polyamide, polyethylene, or polyester, it is old and well-known

in the art that these are commonly used plastics for abrasive particles. Further, Martin teaches that these materials have thermal bonding properties (col. 17, line 31-col. 18, line 6). Therefore it would have been obvious for the plastic of Martin to contain either a polyamide, polyethylene, or polyester.

24. **Regarding claims 25, 27, and 32**, Martin fails to disclose the particular particle sizes with diameters of 50 to 400 um and a surface density of 5 to 300 grams per square meter. However, it would have been obvious to have larger diameter particles and more numerous particles, because this would merely change the coefficient of friction and would vary according to how rough the skin surface was. Therefore it would have been obvious to modify the device of Martin to meet these limitations.

25. **Regarding claims 29-31,** Martin discloses micro staple fibers that can be bonded in similar way as the macro staple fibers of the fiber pad with abrasive particles, but in the cited embodiment, macro fibers are described and used. Regarding claim 29, Martin teaches a fiber material consists essentially of or comprises synthetic micro staple fibers and a fiber material consisting essentially of synthetic macro staple fibers (col. 1, lines 32-39 and lines 56-61). Regarding claim 30, Martin teaches macro staple fibers have a length of at least 7 mm (col. 7, lines 16-19). Regarding claim 31, Martin teaches macro staple fibers are polyester (PES) or viscose fibers (col. 17 line 31 – col. 18 line 6). The size of the fibers does not change the function of the device or how the device can be made. For makeup removal or other similar uses, it would have been obvious to make the device out of microfibers instead of macrofibers so that it is not as rough on skin. Therefore it would have been obvious to make the device of Martin with

microfibers, because it would be equally as durable for the applicant's intended use of the device.

26. **Regarding claim 33,** Martin fails to disclose a fraction of micro staple fibers of 15 to 85 % per weight. Changing the % per weight of the microfibers just changes the absorbency capabilities of the pad. An increase in the absorptive properties allows the device to be used for a longer period of time. Therefore it would have been obvious ot adjust the % per weight range of the micro staple fibers.

27. **Claim 43** is rejected under 35 U.S.C. 103(a) as being unpatentable over McMeekin et al (US 2003/0031703).

28. McMeekin does not specifically disclose distributing the meltable glue powder particles on one side of the fiber layer in a substantially uniform fashion, but teaches that the particles can be applied in any desired pattern (par. 25). Therefore it would have been obvious to also apply the particles in a substantially uniform fashion if that the desired pattern is to be substantially uniform coverage. This would be done by the same processes as that used when a more detailed pattern is desired, but without the use of the template disclosed by McMeekin (par. 31).

29. **Claim 45** is rejected under 35 U.S.C. 103(a) as being unpatentable over McMeekin et al (US 2003/0031703) in view of Pike et al (US 5,605,749).

30. McMeekin discloses the method substantially as claimed above including disclosure that the particles may be applied by any known method (par. 24), but fails to disclose thermal bonding of particles to the fiber layer by hot air or infrared radiation. However, Pike teaches it is old and well-known in the art to thermally bond elements

together by both hot air and infrared processes to form a fiber layer with abrasive properties (col. 5, lines 6-16; lines 27-28). The use of hot air could heat the particles of McMeekin as they are being blown onto the fiber layer, thus preventing them from melting to each other and ensuring that the particle sizes do not change due to the heat applied to them. Therefore it would have been obvious to heat the abrasive components by hot air.

31. **Claims 26, 34, 35, and 41** are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al (US 5,972,463) in view of McMeekin et al (US 2003/0031703).

32. Martin discloses the invention substantially as claimed except for failing to disclose the following:

33. **Regarding claim 26**, McMeekin teaches abrasive particles with a height, perpendicular to a plane of flat extension of said fiber layer, of 50 to 400 .mu.m, 100 to 350 .mu.m, or 150 to 300 .mu.m (par. 31; height of the particles is 0.08 mm). This particle height is within the range defined by the claim limitation, and the device of McMeekin is similar in structure and function to that of Martin. Therefore it would have been obvious to choose a particle height of 0.08 mm.

**34. Additionally regarding claim 26**, the different size limitations are not enough to distinguish from the prior art. See In re: Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984),cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), wherein the Federal Circuit held that, where the only difference between the prior art

and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. Therefore it would have been obvious to have a particle size within the ranges defined by the claim.

35. **Regarding claims 34 and 35**, McMeekin teaches the pad comprises cotton noils (par. 13). Cotton fibers would increase the hydrophilicity and flexibility of the pad, making it more desirable to the user to use for cleaning more sensitive areas of skin. Therefor it would have been obvious to add cotton fibers, or noils, to the pad. McMeekin fails to disclose the % per weight of the cotton fibers but by adding cotton fibers of up to 72 % per weight to the device, the absorbency of the device would be increased, thus improving its cleansing capabilities. Therefore it would have been obvious to have cotton fibers of up to 72 % per weight.

**36. Regarding claim 41**, McMeekin specifically teaches use of a pad for a cleaning of or make-up removal on skin (par. 6 and 10). The device of Martin could also be used to clean the skin. It may be more desirable to use for a more rigorous cleaning, such as wiping mud off of bare feet, but is still just as capable to clean skin. Therefor it would have been obvious to use the device of Martin to clean skin. 8

37. **Claims 36-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al (US 5,972,463) in view of Pike et al (US 5,605,749).

38. Martin discloses the invention substantially as claimed except for failing to disclose the following:

39. **Regarding claim 36**, Martin discloses heat meltable binding fibers (col. 4 lines 30-32) but does not disclose a weight percent fraction. However, Pike teaches heat meltable binding fibers having a weight percent fraction within the range of 10 to 20 weight % (col. 6, lines 43-51). This weight percent fraction does not change the functional capabilities of the device of Martin. Therefore it would have been obvious to choose these weight percent fractions.

40. **Regarding claim 37,** Martin further discloses binding fibers are multi-component fibers or bi-component fibers (col. 4, lines 12-16; col. 5, lines 11-16).

41. **Regarding claim 38**, Martin discloses filaments of diameter greater than 1.3 to 10 dtex, but teaches that textile sized filaments are between 1 to 20 denier, which overlaps the range of 1.3 to 10 dtex, or when converted, 1.4 to 11.1 denier (col. 4, lines 62-65). These limitations of size are not different enough to distinguish from the prior art. See In re: Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984),cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), wherein the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

**42. Further regarding claim 38**, Martin fails to disclose the length of fibers between 3 to 60 mm. However, these limitations of size are not enough to distinguish the instant application of claim 38 from the prior art. See explanation of in re: Gardner above. Additionally, Pike teaches a similar invention wherein the fiber length has a range that

overlaps 3 to 60 mm (col. 4, lines 62-67). Therefor it would have been obvious to have the device of Martin scaled down so that a fiber length is between 3 to 60 mm and 1.3 to 10 dtex.

43. **Regarding claim 39**, Martin further discloses bicomponent fibers that are co-polyester (CO-PES)/polyester (PES) bicomponent fibers (col. 17, line 31- col. 18, line 6; more specifically col. 17, lines 43-50).

44. **Regarding claim 40**, Martin further discloses that a melting temperature of said heat meltable binding fibers or of a low melting temperature component of said multi-component fibers is less than a melting point of micro staple fibers (col. 2, lines 5-13; col. 3, lines 62-65).

***Conclusion***

45. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,290,707; US 5,693,411; US 5,849,647; US 4,426,417.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda Adams whose telephone number is (571) 272-5577. The examiner can normally be reached on M-F, 8:00am-5:00pm, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ASA ASA 3/2/07

ANHTUAN T. NGUYEN
SUPERVISORY PATENT EXAMINER
3/5/07.